ITIL
IT Service Management Overview

George Spalding
Executive Consultant
Pink Elephant

Rules Of Conduct!

- Cell Phones Off! Laptops Down!
- Stay Awake! My Problem!
- Have as much FUN as possible!

George Spalding – Experience

- Executive Consultant, Pink Elephant
- Over 20 years in IT, installed first LAN in 1983
- Technology Instructor for over 10 years
- Advisory Board Of Comdex
- Advisory Board Of Cebit-America
- HDI International Individual Standards Committee
- Author – Windows 2000 Administration

George Spalding – Certifications

- IT service management:
  - ITIL Foundation Certificate
  - ITIL Manager's Certificate in IT Service Management
  - Pink Elephant: IT Executive Certification (Level One)
  - Microsoft Certified Enterprise Services Trainer (MCEST) in Microsoft Operations Framework (MOF)
- IT Security & Audit:
  - $(ISC)^2$: Certified Information Systems Security Professional (CISSP)
  - ISACA: Certified Information Systems Auditor (CISA)
  - ISACA: Certified Information Security Manager (CISM)
- IT Technical:
  - Microsoft: MCSE/MCT (NT3/4/W2K/WXP)
  - Novell: CNE/CNI (NW3/4/5)
  - Cisco: CCNP/CCDA
  - CompTIA: CTT+, A+, Net+, i-Net+, Server+
  - ProSoft: CIW Associate

Today's Objective

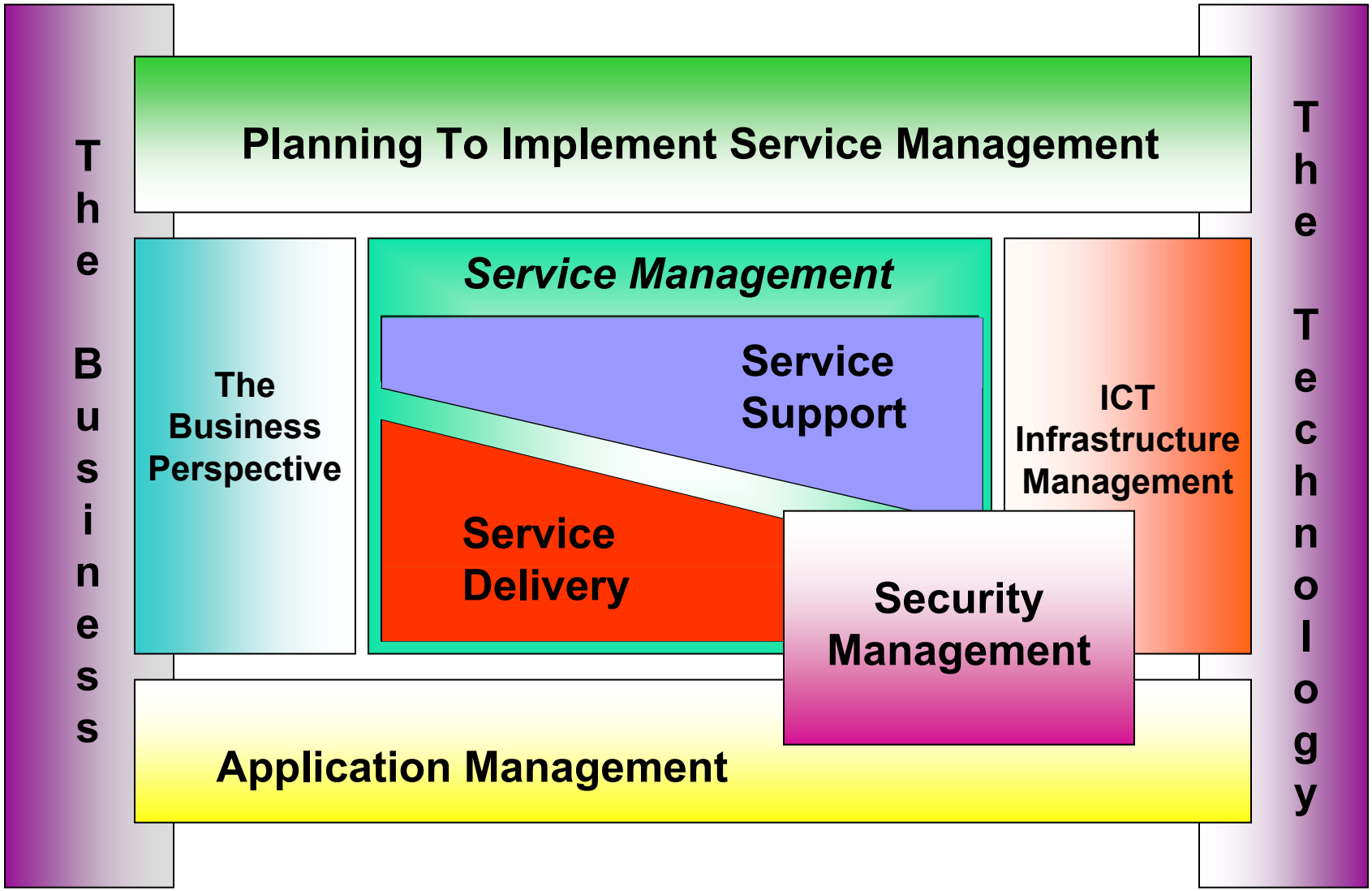
- To provide a very basic understanding (theory and concepts) of the ITIL Service Support and Service Delivery components

What Is ITIL?

- ITIL is a seven book series that guides business users through the planning, delivery and management of quality IT services

Information Technology Infrastructure Library

The ITIL Books



What Is ITIL All About?

- Aligning IT services with business requirements
- A set of *best practices*, not a methodology
- Providing guidance, not a step-by-step, how-to manual; the implementation of ITIL processes will vary from organization to organization
- Providing *optimal service provision* at a justifiable cost
- A non-proprietary, vendor-neutral, technology-agnostic set of best practices

IT Service Management Certification

Foundation Level

For All IT Professionals

Executive Level

Focus On:

- The alignment of IT with the business
- Vision, mission & objectives for IT
- IT policy & strategy

Practitioner Level

Organizational Focus:

- Incident Management
- Configuration Management
- Problem Management
- Release Management
- Change Management
- Service Level Management
- Financial Management
- Capacity Management
- IT Service Continuity Management
- Availability Management

Role Focus:

- Establishing & Managing IT Services According To ITIL Best Practices
- Managing The Changing IT Infrastructure According To ITIL Best Practices
- Establishing A Service Desk According To ITIL Best Practices
- Measuring, Reporting & Improving The IT Infrastructure According To ITIL Best Practices
- How To Implement ITIL: Integrating People, & Tools With Processes

Manager Level

Focus on the need to effectively manage larger scale transitions & improvements

Parties Involved

Office Of Government Commerce (OGC) (www.itil.co.uk)

- Formerly Central Computer and Telecommunications Agency
- *Own* ITIL

Information Systems Examinations Board (ISEB), Examination Institute for Information Science (EXIN) & Loyalist College

- Examining bodies that administer the ITIL certification process

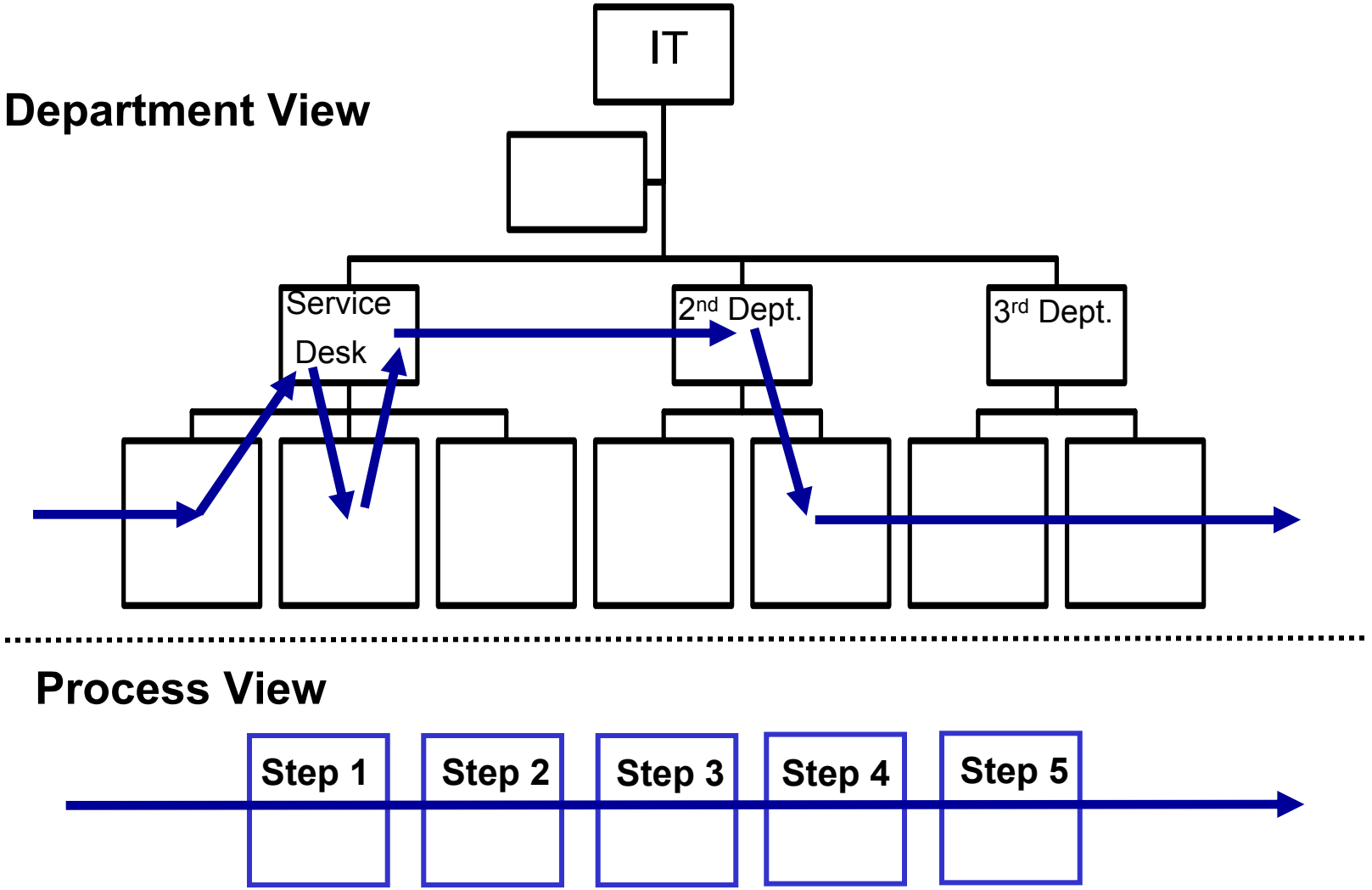
Information Technology Service Management Forum (*it*SMF)

- International Trade Association; Networking forum for ITIL
- Membership based; Owned and operated by the membership
- www.itsmf.net (U.S.)

Pink Elephant

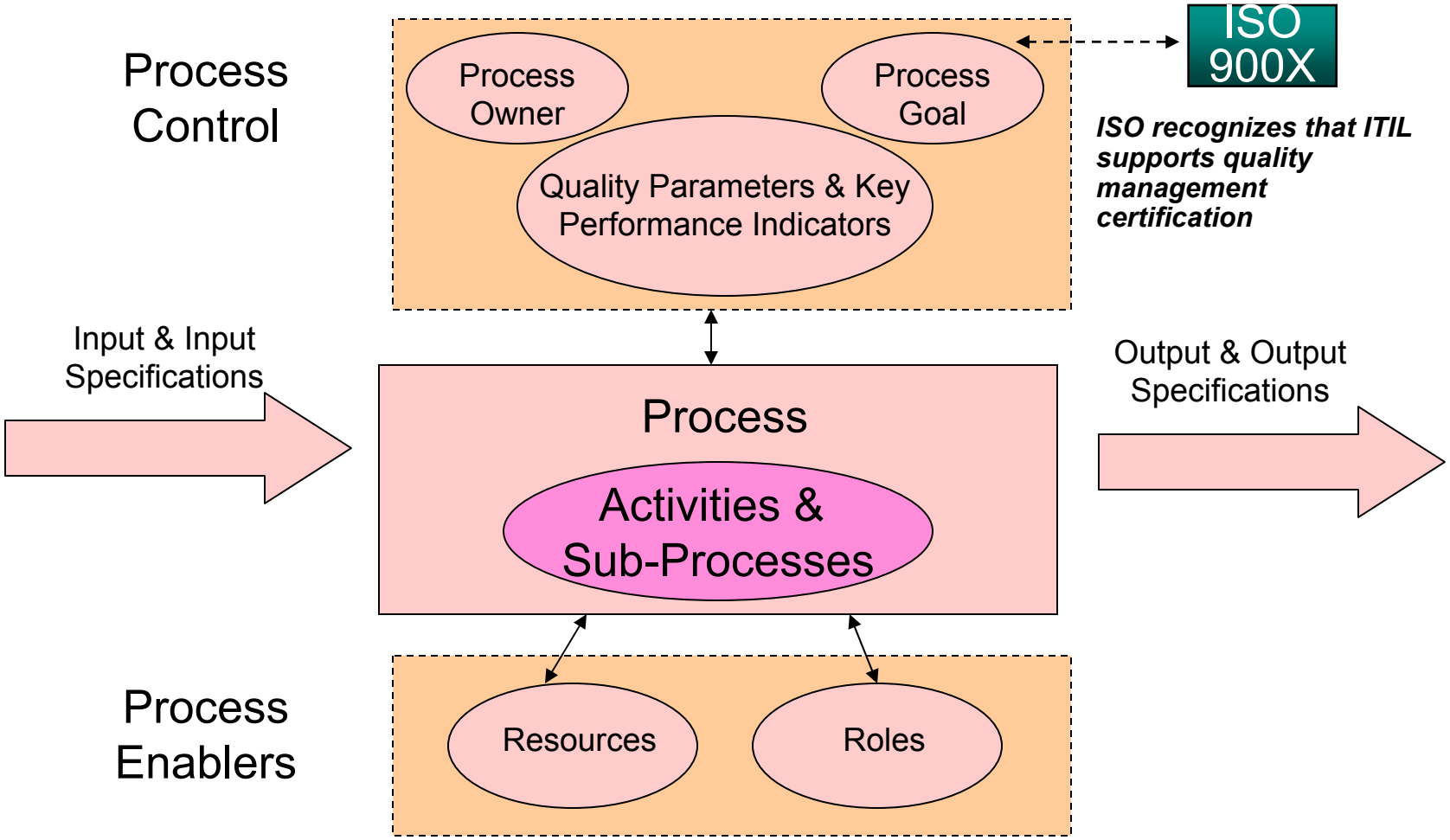
- Largest Worldwide Accredited Supplier of ITIL Education

Processes VS. Departments



High-Level Process Model

If You Can't Measure It, You Can't Manage It



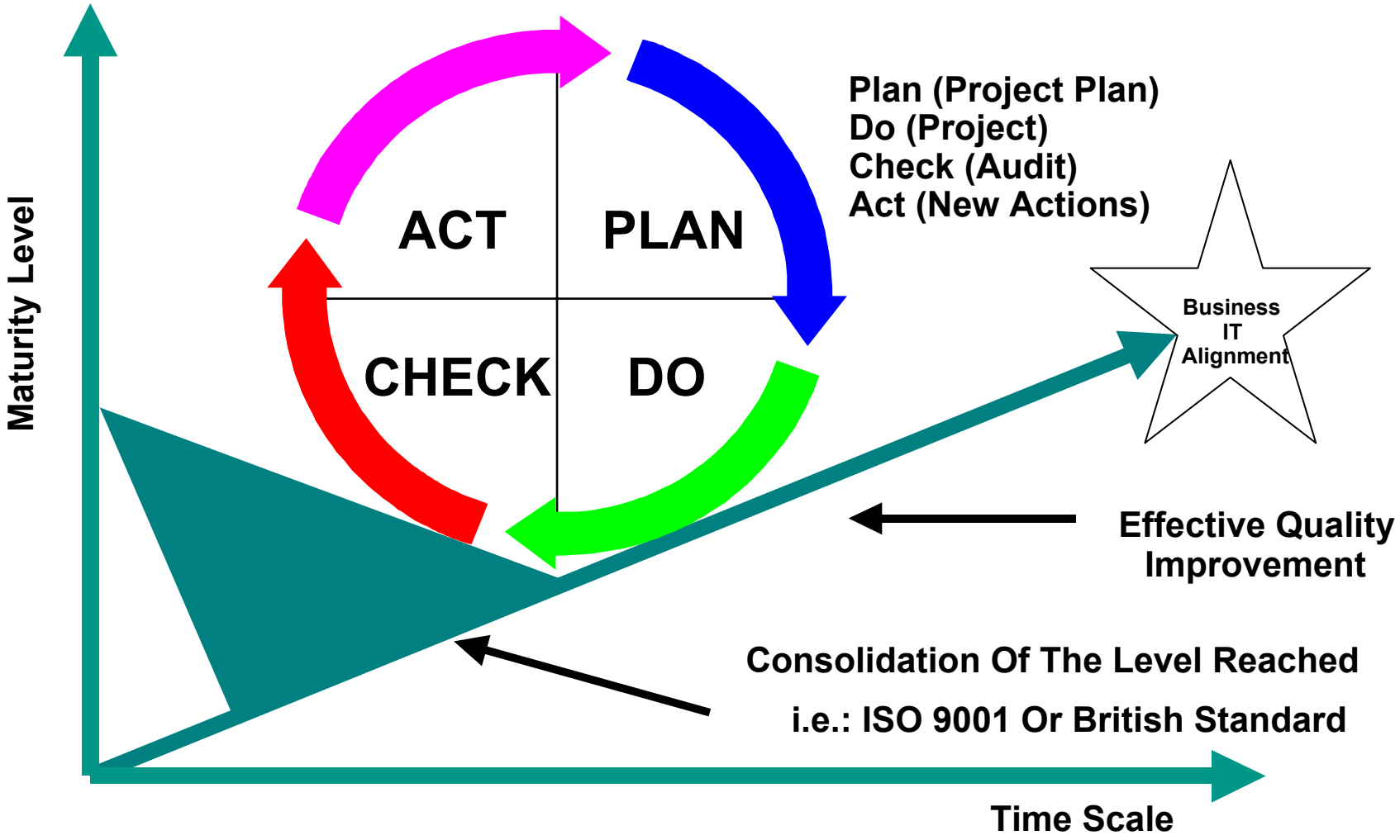
Definition: IT Service

An IT service is a described set of facilities, IT and non-IT, sustained by the IT service provider, that:

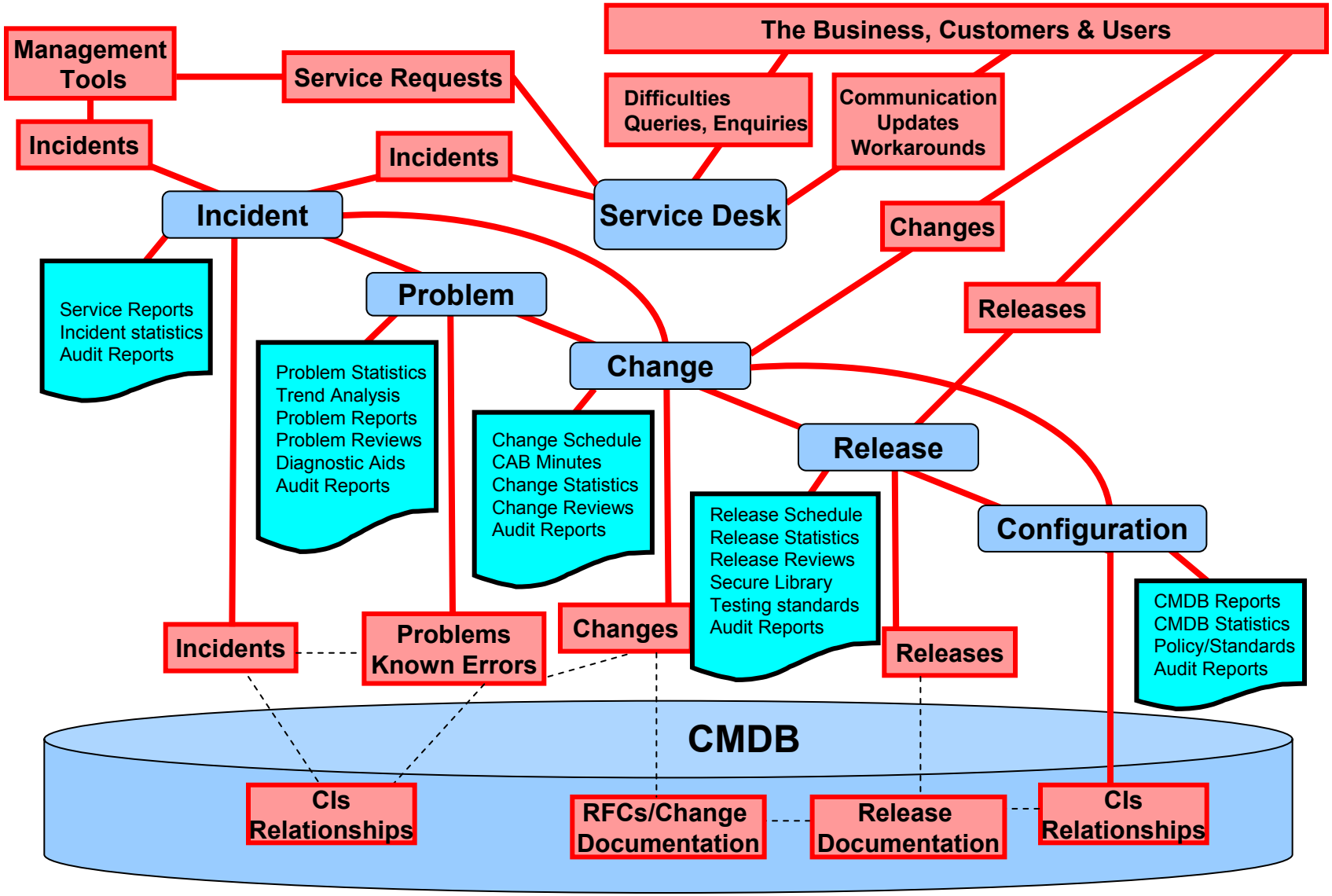
- Fulfills one or more needs of the customer
- Supports the customer's business objectives
- Is perceived by the customer as a coherent whole

The Deming Cycle

Continuous Quality Control & Consolidation



ITIL Service Support Model



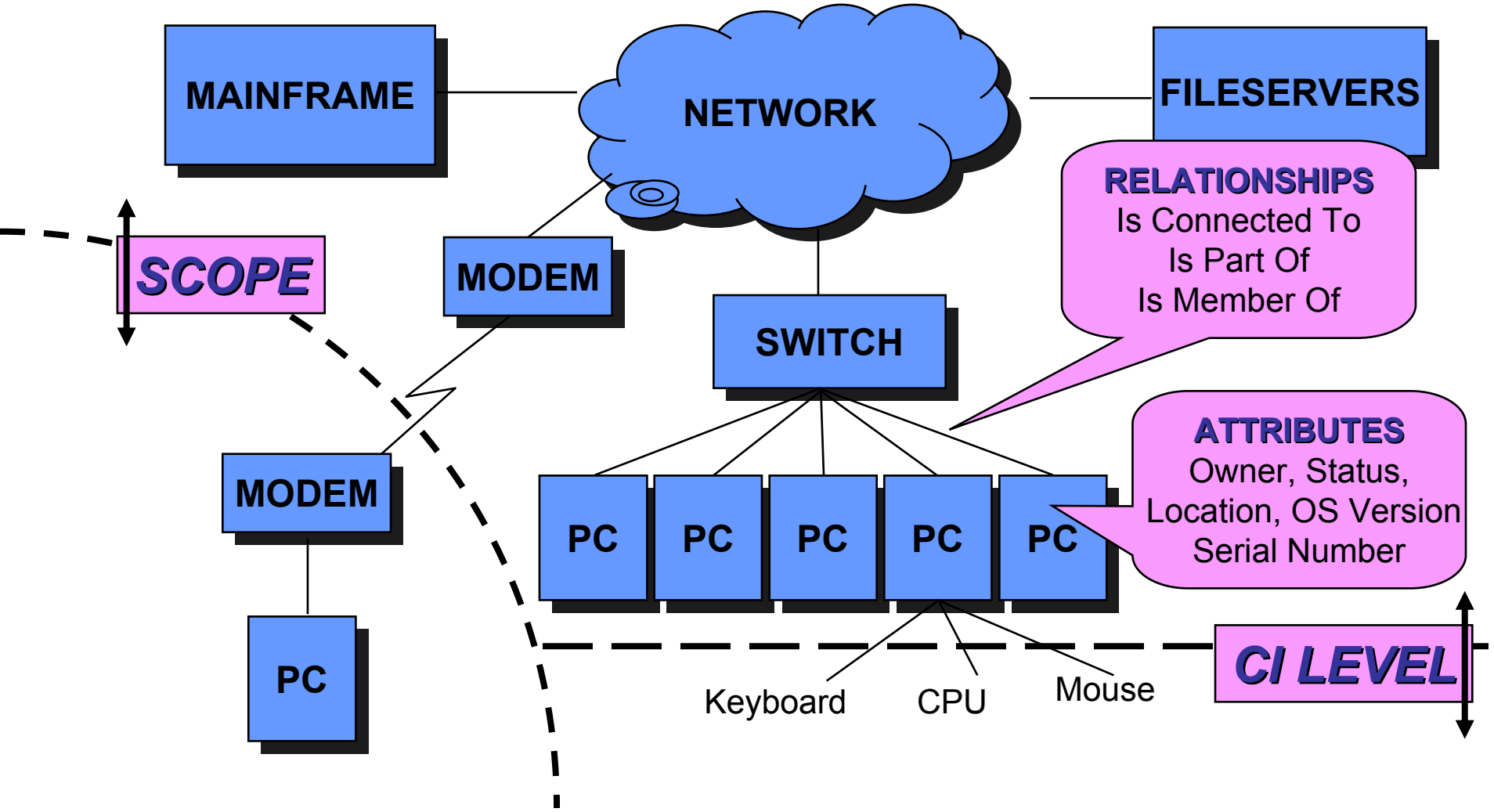
Configuration Management

- To identify, record and report on all IT components that are under the control and scope of Configuration Management

Definitions

- Infrastructure
- Configuration Management Database (CMDB)
- Configuration Item (CI)
- Baseline
- Scope
- CI Level
- Attributes
- Relationships

Example Hardware CIs



Benefits

- Accurate information of CIs and their documentation
- Adherence to legal obligation
- Contributes to service continuity plan
- Helps with financial planning

Possible Challenges

- Wrong CI level with too much detail
- Over ambitious schedules
- Lack of management commitment
- Circumvention of process

Metrics & Management Reports

- Setting Objective Metrics & Tracking The Following:
  - Unauthorized configurations
  - Change approval and implementation cycle time
  - Unauthorized IT components in use

- Management Reports:
  - Outcomes of configuration audits
  - Information on non-registered or inaccurate CIs
  - Detailed information on registered CIs
  - Growth information

Service Desk

- To provide a strategic central point of contact for customers and an operational single point of contact for managing incidents to resolution
- In addition, the Service Desk handles Service Requests

Activities

- Improve service to, and on behalf of the business
- Provide advice and guidance to customers
- Provide rapid restoration of normal service operations
- Meet expectations set out in the Service Level Agreements (SLA)
- Communicate and promote IT services
- Management information

Benefits

- Improved customer service, perception and satisfaction
- Increased accessibility - single point of contact
- Improved teamwork and communication

Possible Challenges

- Resistance to follow procedures
- Overload/burnout
- Organizational policy – no buy-in for SPOC
- Poor communication skills

Metrics & Management Reporting

- Daily reviews of incident/problem status against service levels
- Weekly service availability, service breaches, staff workload, known errors and registered changes
- Monthly overall performance, achievements and trend analysis
- Unsatisfied customer incidents from previous week
- Proactive reports and planned changes

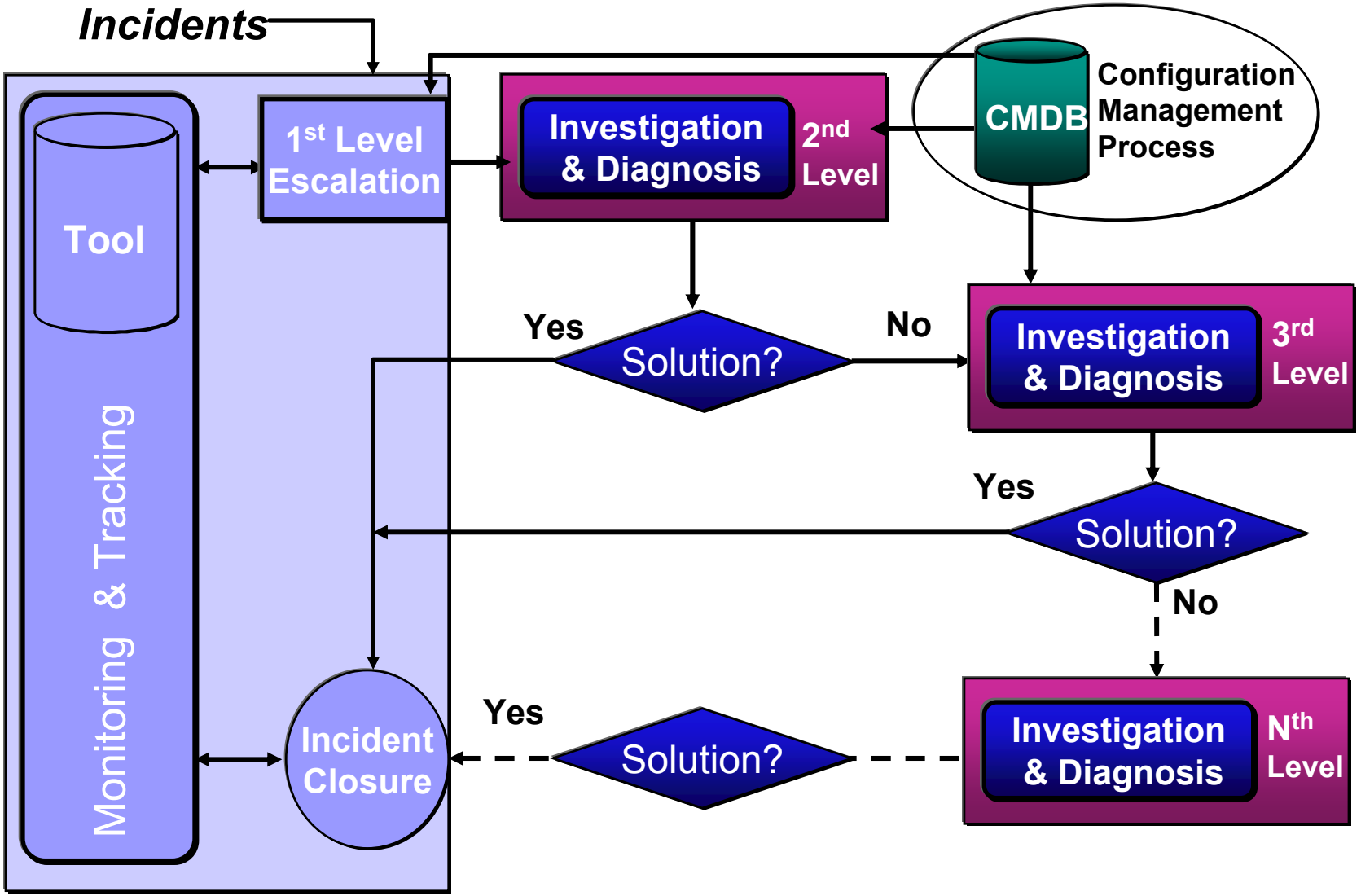
Incident Management

- To restore normal service operation as quickly as possible and minimize the adverse impact on business operations

Definitions

- Incident
  - Any event which is not part of the standard operation of a service and which causes, or may cause, an interruption to, or a reduction in, the quality of that service

Incident Control (With Escalation)



Benefits For The Business

- Reduced business impact of incidents by timely resolution
- Proactive identification (enhancements/amendments)
- Availability of business-focused management information related to the SLA

Benefits For IT

- Improved monitoring of SLAs
- Better staff utilization leading to greater efficiency
- Elimination of lost incidents
- More accurate information (CMDB)

Possible Challenges

- No one to manage and escalate incidents
- Lack of knowledge for resolving incidents
- Inadequate training for staff
- Lack of integration with other processes
- No provision of agreed service levels

Metrics & Management Reports

- Total number of incidents
- Mean elapsed time to achieve resolution, broken down by impact code
- Percentage handled within agreed response time per SLA by impact code
- Average cost per incident
- Percentage of incidents closed by Service Desk first-contact not requiring escalation
- Incidents per agent

Problem Management

- To minimize the adverse impact of incidents and problems on the business that are caused by errors in the IT Infrastructure and to prevent recurrence of incidents related to these errors

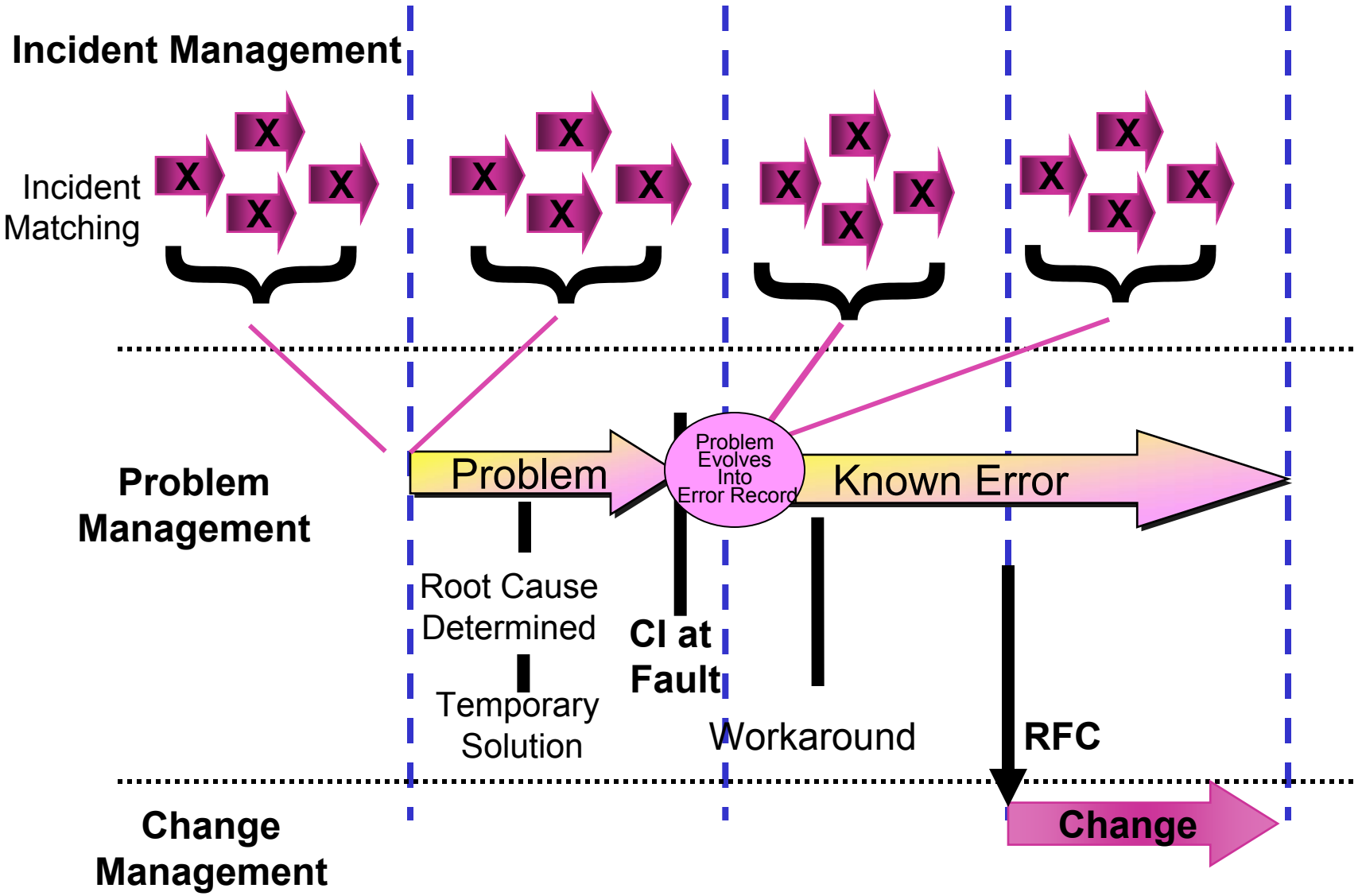
- Problem Management seeks to get to the root cause and initiate action to remove the error

Definitions

- Problem
  - A condition identified from multiple incidents exhibiting common symptoms, or from a single significant Incident, indicative of a single error, for which the cause is unknown

- Known Error
  - A condition identified by successful diagnosis of the root cause of a problem, when it is confirmed which CI is at fault

From Incident(s) To A Problem To A Known Error To A Change



Benefits

- More effective and efficient incident handling
- Increased service quality
- Reduction in the number of incidents and problems
- Permanent solutions

Possible Challenges

- Incident control procedure
- Staffing issues
- Knowledge based system
- Dealing with Known Errors

Metrics & Management Reports

- Number of RFCs raised by error control and their impact on services
- Number of problems split by status, service, impact and category
- Elapsed time on outstanding problems
- Expected resolution time for outstanding problems
- Total elapsed time for closed problems

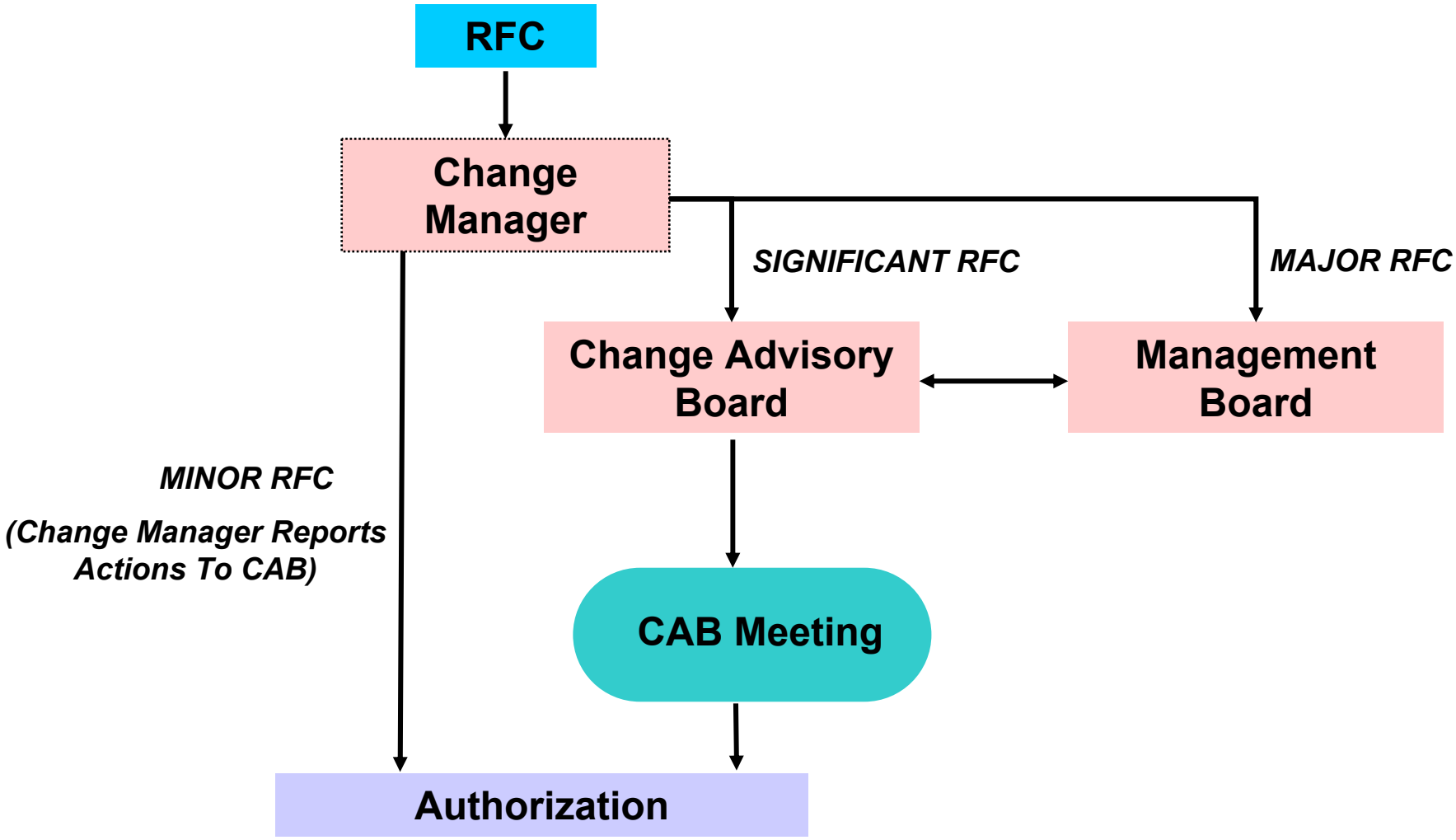
Change Management

- To ensure that standardized methods and procedures are used for efficient and prompt handling of all changes to minimize the impact of change-related incidents and improve day-to-day operations

Definitions

- Change
  - An action that results in a new status for one or more IT infrastructure configuration items
- Standard change (Pre-Approved)
- Urgent change
- Request For Change (RFC)
- Forward Schedule Of Changes (FSC)
- Projected Service Availability (PSA)
- Change Advisory Board (CAB)
- Change Advisory Board Emergency Committee (CAB/EC)
- Management Board

Change Approval



Benefits

- Better alignment of IT services to business requirements
- Fewer changes to be backed out
- Increased productivity of users
- Greater ability to handle a large volume of change

Possible Challenges

- Overtly or perceived as a bureaucratic process
- Cultural difficulties to accept Change Management
- Irregular audits to check compliance to Change Management
- Bypassing the process (circumventing)
- Everything is urgent

Metrics & Management Reports

- High incidences of RFCs relating to one CI
- Number of incidents traced to changes
- Number of successful changes
- Number of changes backed out and indicating reasons
- Change backlogs broken down by CI

Release Management

- Release Management takes a holistic view of a change to an IT service and should ensure that all aspects of a Release, both technical and non-technical, are considered together

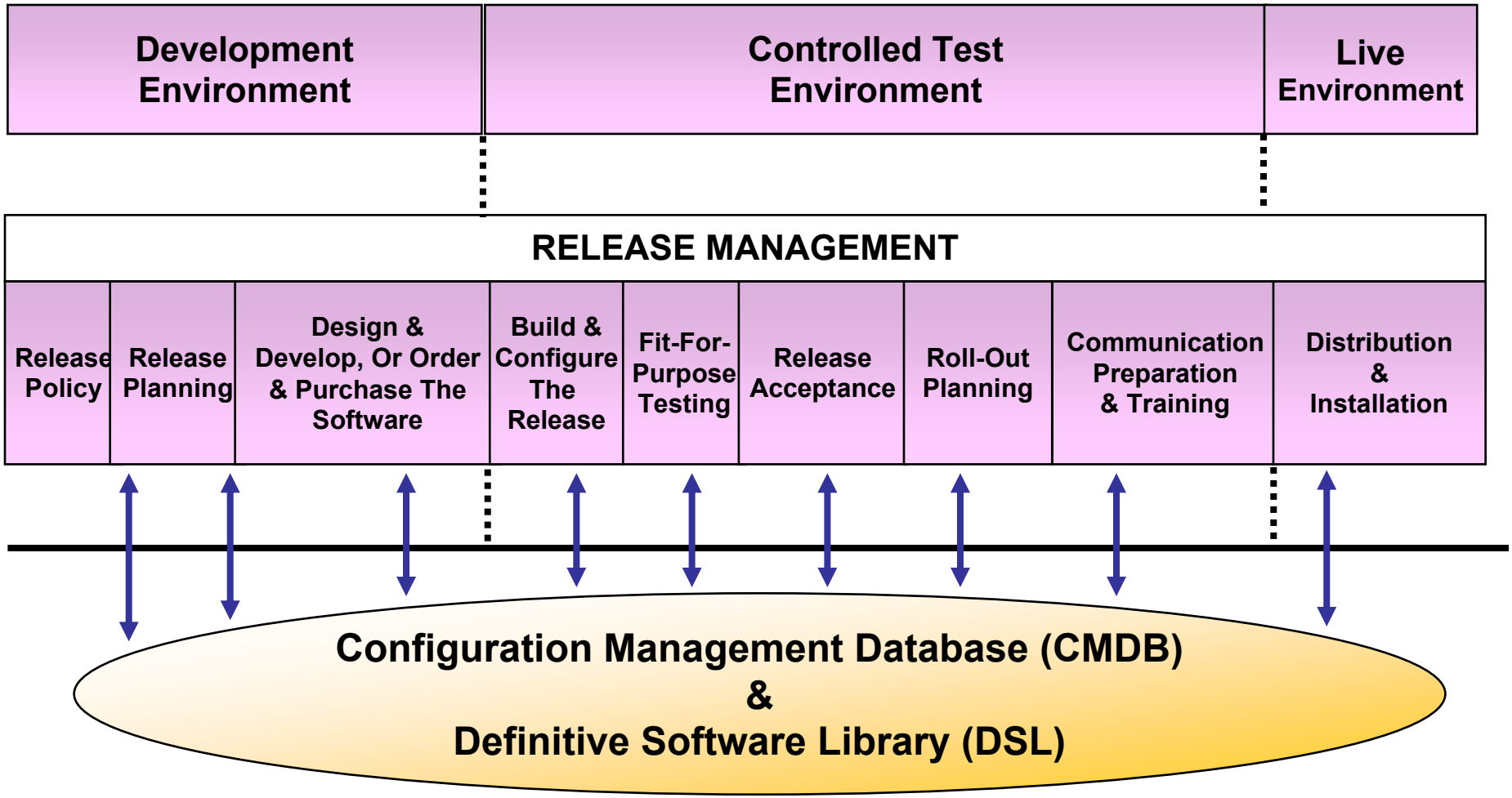
Definitions

- Definitive Software Library (DSL)
- Definitive Hardware Store (DHS)

Definitions

- Release
  - Delta Release
  - Full Release
  - Package Release
- Emergency Release
- Release Policy

Activities



Benefits

- Consistency in the release processes
- Better expectation levels
- Improved historical data concerning releases
- Reduced risk of unauthorized or illegal software

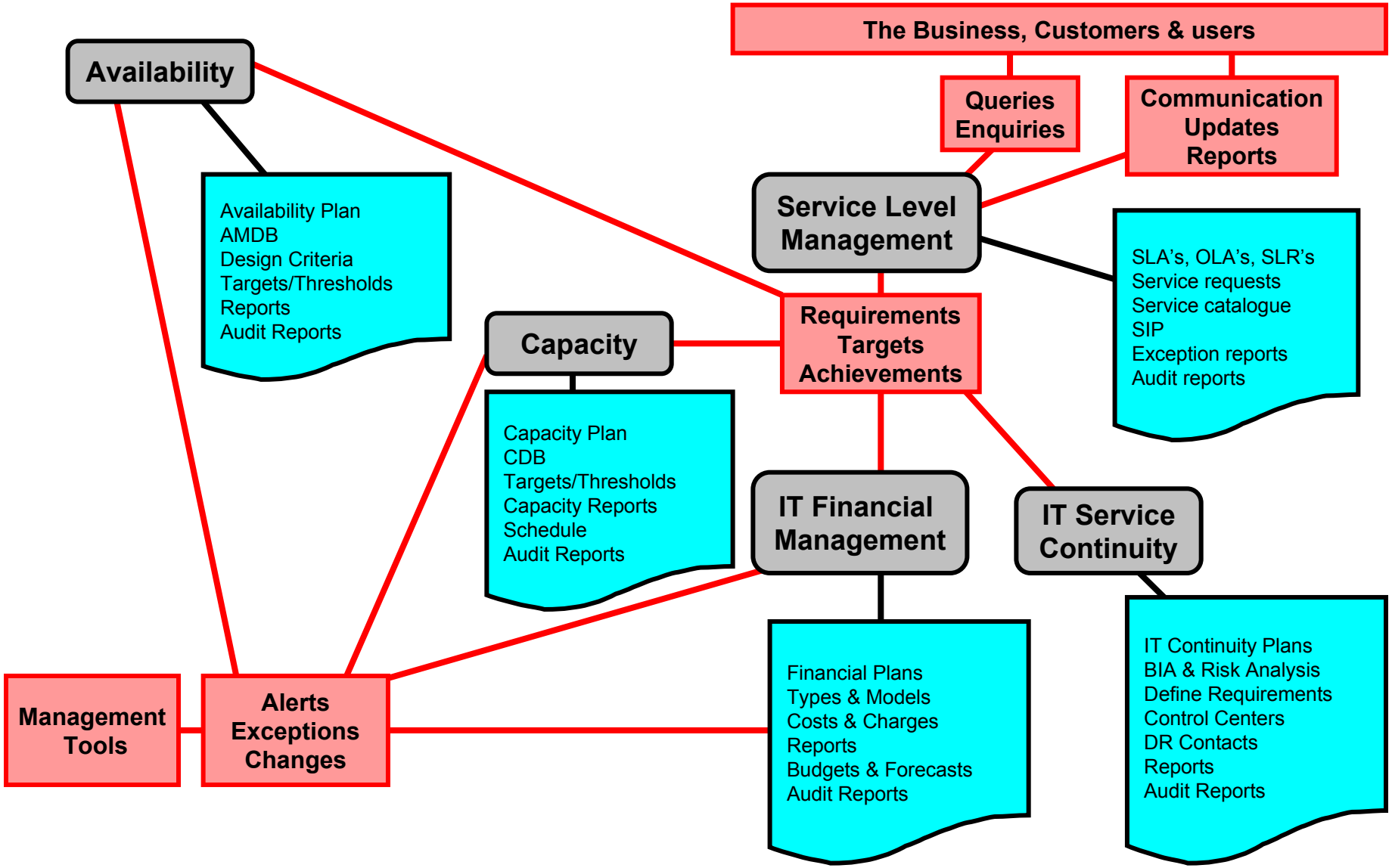
Possible Challenges

- Initial resistance to change
- Circumvention of procedures
- Unclear ownership and responsibilities
- Pressure to move forward

Metrics & Management Reports

- Number of major and minor releases per reporting period
- Number of problems in the live environment that can be attributed to new releases
- Number of new, changed and deleted objects introduced by the new release
- Number of releases completed in the agreed timescales

The Service Delivery Process Model



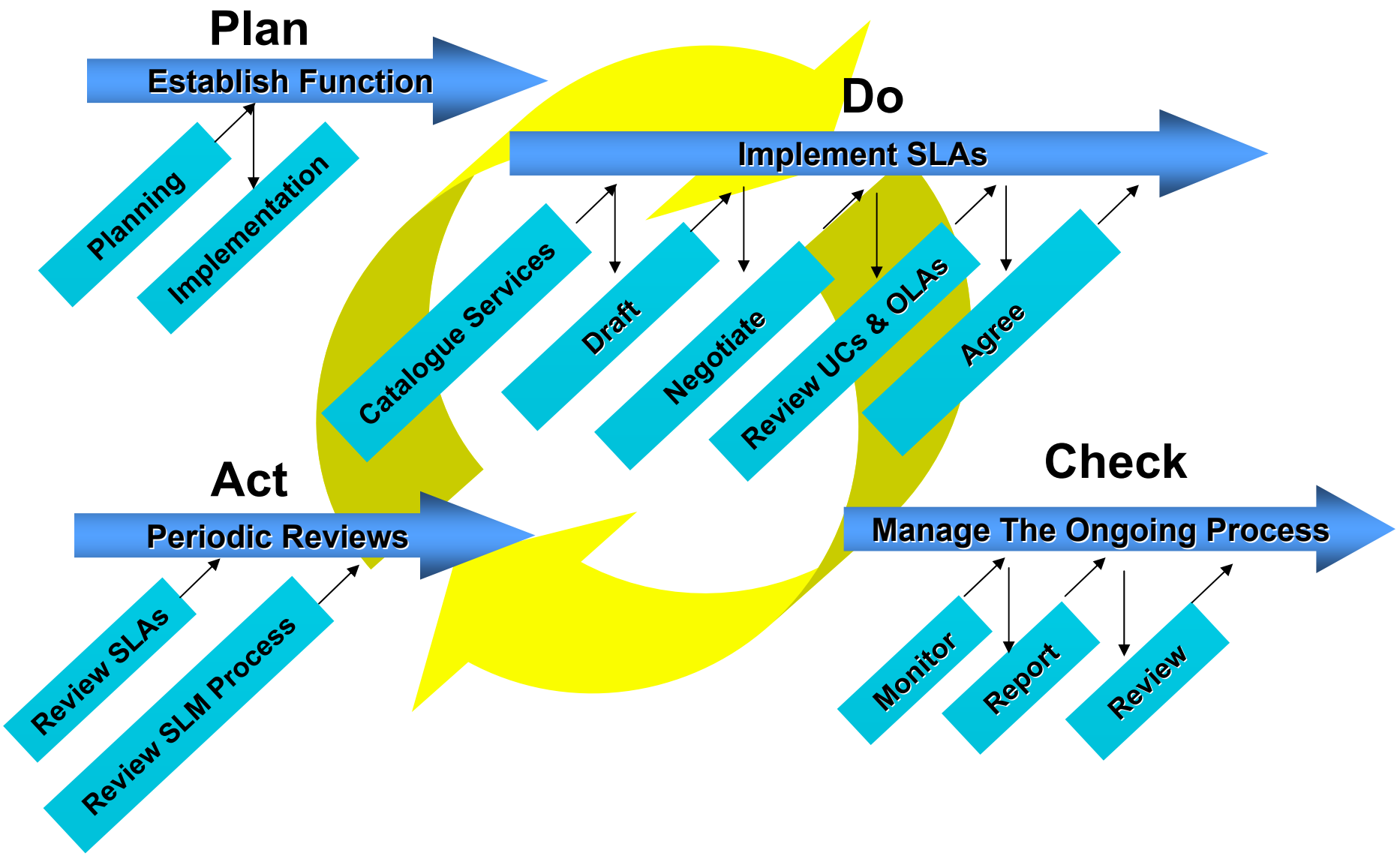
Service Level Management

- To maintain and improve IT service quality through a constant cycle of agreeing, monitoring and reporting to meet the customers' business objectives

Definitions

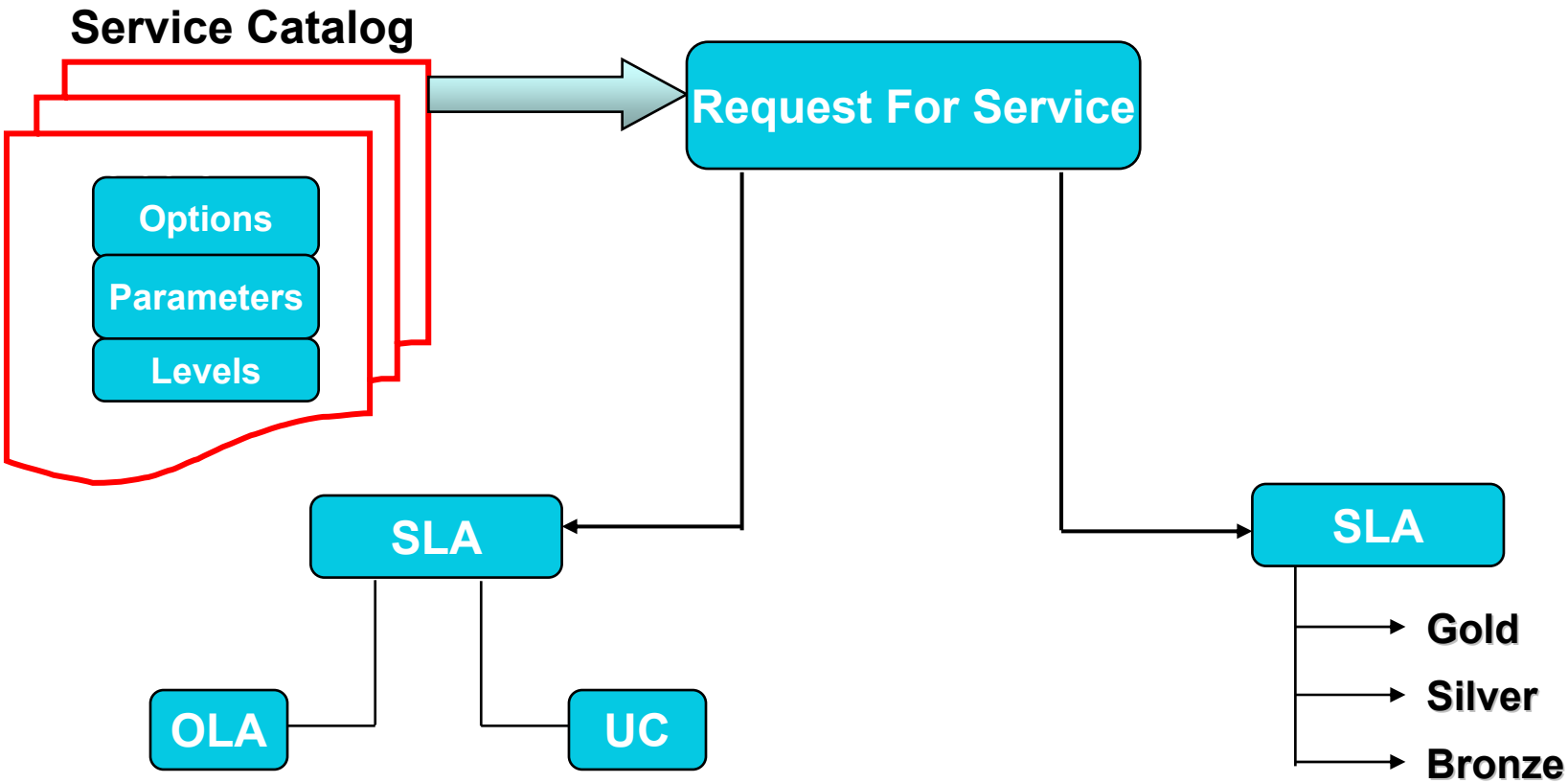
- Service Level Agreement (SLA)
- Operational Level Agreement (OLA)
- Underpinning Contract (UC)
- Service Catalog
- Service Improvement Program (SIP)
- Service Level Requirements (SLR)

Activities



The Service Catalog

- Defines the default services with the default levels of service and the options



Benefits

- Services are designed to meet Service Level Requirements
- Monitoring specific targets
- Focused on business needs
- Service improvements
- Supplier management
- SLA can be used as a basis for charging

Possible Challenges

- Monitoring actual achievements
- Ensuring targets are achievable prior to agreement
- Inadequate supporting agreements
- IT based rather than business aligned
- SLAs not communicated

Metrics & Management Reports

- Number or percentage of services covered by SLAs
- Are underpinning contracts and OLAs in place for all SLAs?
- Regular review meetings and any service improvement programs
- How many service breaches?
- Are service breaches followed up effectively?

Availability Management

- To optimize the capability of the IT infrastructure, services and supporting organization to deliver a cost effective and sustained level of availability enabling the business to meet their objectives

Definitions

- Availability
- Reliability
- Maintainability (Internal)
- Serviceability (External)
- Resilience
- Security (Confidentiality, Integrity, Availability)
- Vital Business Function (VBF)
- Availability Management Database (AMDB)

Benefits

- Single point of accountability
- Design for availability
- Optimal usage and performance
- Reduction of failures
- Error correction to service enhancement
- Adds value to the business

Possible Challenges

- Organizational commitment
- Management responsibility
- Requirement for a unique availability process
- Appropriate authority levels
- Lack of resources
- Support tools and techniques

Metrics & Management Reports

- Traditional measures
- Business driven measures
- Vital Business Function
- Reporting perspectives

Capacity Management

- To ensure that all the current and future capacity and performance aspects of the business requirements are provided cost effectively

Definitions

- Capacity Database (CDB)
- Demand Management
- Resource Management
- Modeling
- Application sizing

Benefits

- Increased efficiency and cost savings
- Reduced risk
- More confident forecasts
- Value to applications lifecycle

Possible Challenges

- Over expectation
- Vendor influence
- Lack of information
- The distributed environment
- Monitoring levels

Metrics & Management Reports

- Resource forecasts
- Technology
- Cost effectiveness
- Plan and implement the appropriate IT capacity

IT Service Continuity Management

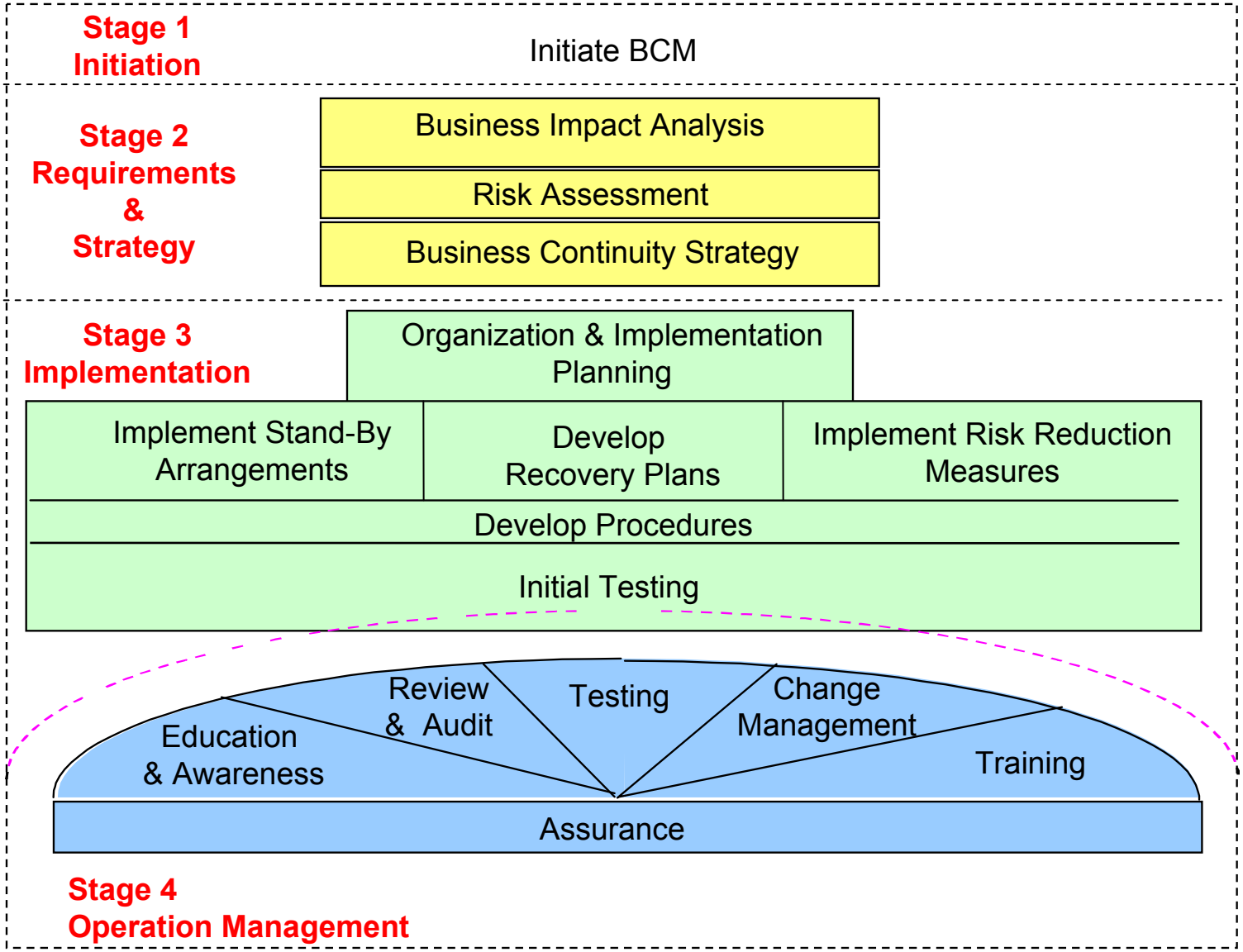
- To ensure that the required IT technical and services facilities can be recovered within required, and agreed timescales

- IT Service Continuity Planning is a systematic approach to the creation of a plan and/or procedures (which are regularly updated and tested) to prevent, cope with and recover from the loss of critical services for extended periods

More Definitions

- Crisis
  - An unplanned situation in which it is expected that the period during which one or more IT services will be unavailable will exceed threshold values agreed to with the customer
- Risk Management: Asset – Threat – Vulnerability
- Manual Work-Around
- Reciprocal Arrangements
- Gradual Recovery a.k.a Cold Standby
- Intermediate Recovery a.k.a Warm Standby
- Immediate Recovery a.k.a Hot Standby

Activities



Benefits

- Management of risk
- Potential lower insurance premiums
- Regulatory requirements
- Business relationship
- Positive marketing of contingency capabilities
- Organizational credibility
- Competitive advantage

Possible Challenges

- A Service Continuity Plan will not remove sources of risk
- Address not only technical safeguards but also organizational facilities
- Not all damage is financially quantifiable
- Service Continuity Plans may be required by law

Metrics & Management Reports

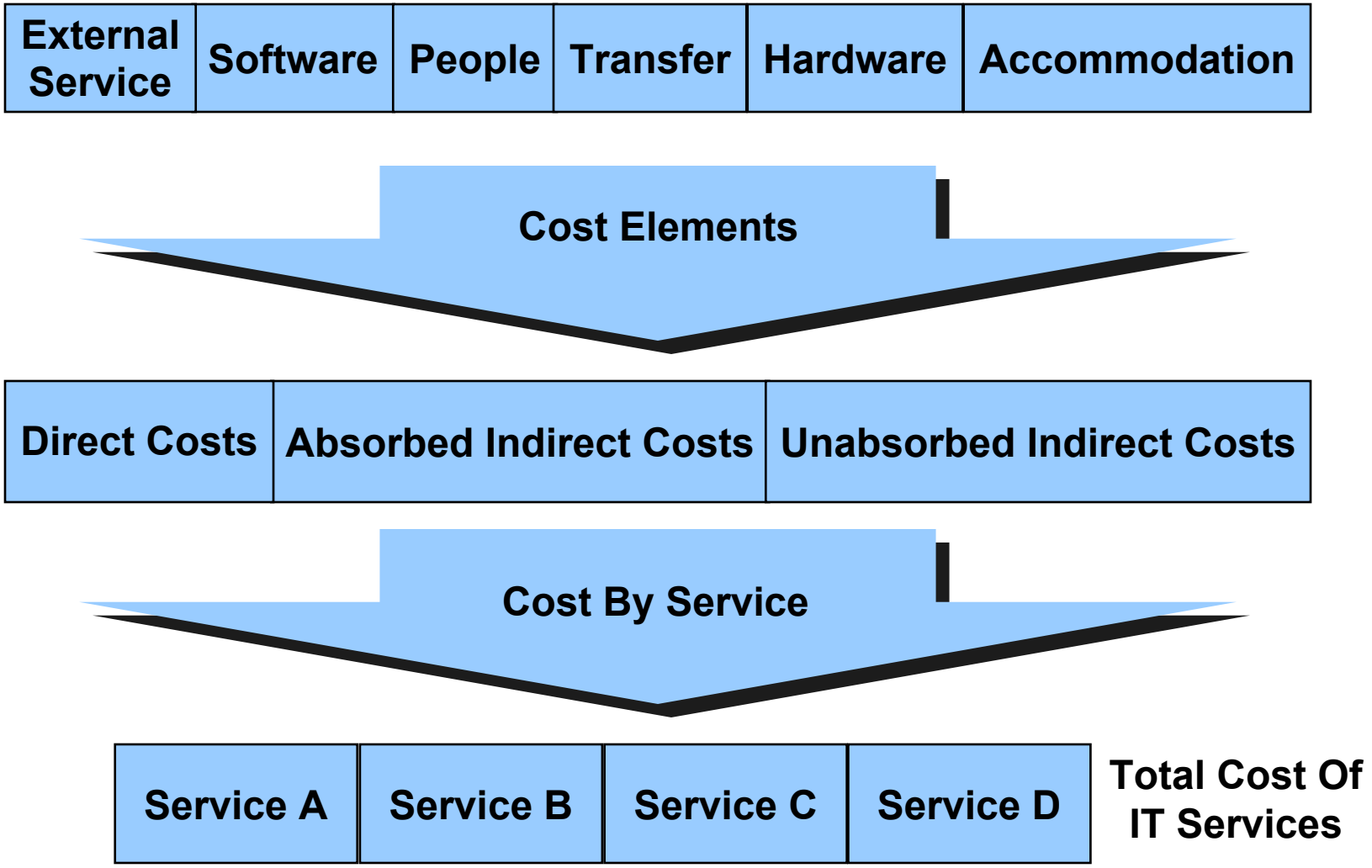
- Incidents from which crises (could) have arisen
- Changes influencing the service continuity plan
- Results of service continuity plan tests
- Costs of recovery options (countermeasures)

Financial Management For IT Services

- To provide cost-effective stewardship of the IT assets and resources used in providing IT services

IT Financial Management

All IT Costs



Benefits

- Increased confidence in setting and managing budgets
- Accurate cost information
  - To support IT investment decisions
  - For determining cost of ownership for ongoing services
- A more efficient use of IT resource throughout the organization
- Increased professionalism of staff within the IT organization
- Better perception of IT within the Business

Possible Challenges

- New disciplines
- IT/accountancy skills
- Poor strategic objectives
- Costs and changes
- Costs outweigh benefits

Metrics & Management Reports

- Broken down by business:
  - Total cost
  - Total revenue
- Cost analysis by service line, equipment domain or other relevant view
- Costs and cost recovery:
  - Against profile
  - Outlook
- Problems and costs associated with IT accounting and charging systems
- Recommendations for changes
- Future investments required

Thank You!

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